

News story: Using AI in NHS diagnosis: apply for funding

X-rays of arms and legs are among the most frequent diagnosis processes used by NHS Scotland, with around 5,000 procedures annually.

Although injuries in these areas are often categorised as minor, misdiagnosis and mismanagement can hamper recovery and lead to financial cost. However, the use of artificial intelligence (AI) and machine learning could help create systems that prevent misdiagnosis.

£240,000 is available through an Innovate UK Small Business Research Initiative (SBRI) competition, with funding from [Opportunity North East](#) and [NHS Scotland](#), to investigate the use of AI and machine learning in the NHS.

AI marks the spot

The competition will explore how AI and machine learning can be used to support limb radiographs in the diagnosis of fractures. Possible improvements include diagnosis accuracy and treatment and increased productivity in radiology departments.

Projects must use a dataset of peripheral limb X-rays and reports from the University of Aberdeen to develop AI algorithms that:

- interpret the current text-based report to correctly categorise fractures
- use radiograph images to identify the presence of fractures
- ensure the AI product can function at real-world accuracy

Successful applicants will be able to receive input from NHS Grampian, NHS Greater Glasgow and Clyde, the University of Aberdeen and Canon Medical Research Europe.

A 2-phase competition

The competition will comprise 2 phases. In phase 1, applicants will conduct technical feasibility studies on their proposed solution. Up to £100,000 including VAT is available in phase 1, and as many as 5 projects are expected to be funded.

Phase 2 will include prototype development and evaluation. Up to £140,000 including VAT is available at this stage.

Competition information

Press release: £28,000 penalty for Nottinghamshire farming companies who caused serious pollution

The pollution impacted groundwater and killed fish

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Two Nottinghamshire farming companies have been fined a total of £28,800 for causing pollution to a pond through the discharge of maize silage effluent from Sutton Grange farm in Sutton-cum-Lound near Retford.

The pollution incident resulted in the death of 35 fish and at the time caused a significant impact on the local groundwater.

Sutton Grange AD Ltd and Sutton Grange Services Ltd were successfully prosecuted by the Environment Agency in a case heard at Mansfield Magistrates Court on Friday 10 May.

The excessive amount of maize stored coupled with the manner in which it was kept, caused a runoff of highly polluting maize silage effluent. There was also a failure to comply with the silage, slurry & agricultural fuel oil regulations on the part of Sutton Grange Services Ltd in relation to a second pile of maize.

The two companies pleaded guilty to three charges of breaching environmental regulations following a number of pollution incidents in October and November 2015, all arising from a maize storage/clamping operation at an anaerobic digestion plant at Sutton Grange farm.

Sutton Grange AD Ltd were fined £6,000 and Sutton Grange Services Ltd were fined a total of £2,800. Each company was ordered to pay costs of £10,000, as well as a victim surcharge of £170.

The court heard how Sutton Grange AD Ltd, which holds an environmental permit for the operation of its anaerobic digestion activities, failed to ensure that proper systems were in place to ensure that only uncontaminated surface

water was discharged into the ponds.

Sutton Grange AD Ltd stored a significant amount of maize on a purpose built clamp which was built on top of a manhole linked to a stone outfall at Bluebell pond. Sutton Grange Services had been contracted to carry out clamping operations.

Following an earlier report from a member of the public about a possible fish kill at the lake behind Sutton Grange Farm on 19 October 2015, on 24 October 2015 officers received a further notification of a pollution incident at the same pond. The officers attended and found dissolved oxygen levels in the pond were extremely low. They also found the maize clamp was blocked and contained yellow liquid. The liquid was flowing downwards across the farmyard.

Further inspections of the site showed silage effluent had escaped the shallow perimeter drain surrounding the maize mound and was leaking into the manhole which discharges to the stone outfall in Bluebell pond, resulting in the fish kill and significant impact on groundwater quality.

In mitigation, the court heard that both companies had taken a number of steps to improve operations at the site to ensure that no further incidents such as this would happen again. Neither company had any previous convictions and were given credit for their early guilty pleas.

An officer speaking on behalf of the Environment Agency said:

Sutton Grange AD Ltd and Sutton Grange Services Ltd have failed to act in accordance with environmental laws and as a result they have caused pollution to a pond in the close vicinity of the farm and the local groundwater.

Pollution of any watercourse is a serious offence because of the devastating impact it can have on fish, wildlife and ecosystems. These were entirely preventable incidents, which led to the pollution of watercourses in the area and we hope this case sends a strong message to the farming industry that their activities have the potential for serious impacts on the environment.

We will always take action against anyone who fails to act in accordance with environmental laws and if anyone spots an environmental incident they can report it to the Environment Agency's 24-hour incident hotline on 0800 80 70 60.

Press release: Dame Vera Baird appointed as new Victims' Commissioner

Dame Vera Baird has been appointed the new Victims' Commissioner and will take over the role from Baroness Newlove in mid-June 2019.

News story: Defence Secretary calls for veteran-led support to be at the heart of mental health services

Following the Government's allocation of £10 million to support veterans mental health, through the Armed Forces Covenant Fund Trust, the new Defence Secretary has announced that up to £9 million of this funding will be allocated to mental health and wellbeing activities.

She also announced that additional measures will be taken to attract and support applications from organisations run by veterans, and that the Trust has funded tools to evaluate such projects to enable those organisations to attract greater funding in the future.

Defence Secretary Penny Mordaunt said:

Veteran led organisations often provide the most valued and effective support, but don't have massive "backroom" operations needed to research or make applications. We will provide support so they can access this funding, and help to demonstrate the difference their work is making to the wellbeing of those who have serviced.

As part of the package of measures, the Defence Secretary has also announced:

- As part of the new transition policy to be launched this year, when service personnel transition into civilian life, the MOD will seek consent from individuals to be proactively contacted in the future, in order to signpost towards support if required.
- The Department for Work and Pensions and the Ministry of Defence will review specific information for veterans in receipt of benefits, pensions and compensation to ensure they are clearly pointed to where

support is available. DWP will also introduce an indicator on the Universal Credit system, which will allow them to understand where veterans claiming benefits are, so they can ensure they've got their resources in the right place.

- The current MOD veterans study will be extended to include the most recent service leavers and will be updated on an ongoing basis to provide real-time monitoring of suicides.
- This will be complemented by a new study, funded jointly by the MOD and NHS (England), by Manchester University into ex-service personnel who take their own lives. The study will look at risk factors in the year leading up to a suicide and will use the National Confidential Inquiry into Suicide and Mental Health database and records from Coroners' inquests to look at factors which led an individual to take their own life. Combined, these studies will provide increasingly robust data in order to understand whether suicide in the ex-forces community is disproportionate compared to the rest of the UK general population and will identify potential interventions in order to prevent suicide.
- The appointment of the first Armed Forces Mental Health and Wellbeing Champion, Warrant Officer Glenn Haughton OBE, who served in Northern Ireland, Iraq and Afghanistan.

Currently serving as the Senior Enlisted Advisor to the Chiefs of Staff (SEAC), WO1 Haughton works with senior officers across the British Army, Royal Navy, Royal Marines and Royal Air Force to improve awareness of the issues facing service personnel at all levels. His new role will focus on the mental health and wider wellbeing of the Armed Forces, raising awareness for the support available and the promoting the benefits of mental fitness within the military.

Minister for Defence People and Veterans Tobias Ellwood, said:

I'm incredibly proud of how far our Armed Forces have come when it comes to recognising the importance of mental resilience, and having the courage to come forward and ask for help when it is needed.

But we still have a long way to go to encourage our people to get talking, share their experiences, and to make sure the support they need is never more than a phone call away.

WO1(SEAC) Glenn Haughton, Armed Forces Mental Health and Wellbeing Champion, said:

It doesn't matter how big and tough you are – mental health can affect us all. My job will be to promote the tools available to enhance mental fitness and well-being, and to make sure those at the senior levels of Defence understand how best we can support. Every member of the Armed Forces deserves to know what help is available and how they can use it.

Mental Health Awareness Week will also see the launch of Project REGAIN – the new initiative designed by Royal Marines, aimed at promoting early detection of those who could suffer from mental health issues. REGAIN allow Royal Marines and related ranks to refer themselves directly to specialists without the need to first go through their unit's medical officer. This will ensure that getting support is as straightforward as possible. They will be required to make one phone call to an MOD mental health unit in Colchester, who will put them straight through to a nurse who will arrange an appointment locally.

The MOD is committed to supporting not just those who are serving, but also those who have left the forces and might be struggling to adapt to civilian life. Last year, the Veterans' Gateway – the first port of call for those in need – launched a new proactive outreach trial to check our veterans are receiving the care they deserve.

The ongoing trial, supported by £108,000 of funding from the Ministry of Defence, has so far made over 6,000 outbound calls, with over 300 resulting in referrals to support services or additional guidance and advice being provided.